CONTENTS OF VOLUME 31

NUMBER 1

Articles

Clutch formation in the turtle, *Kinosternon flavescens* (Testudines: Kinosternidae). *David R. Long* 1

Relationship between clutch development and variation in fatbody mass and liver mass of female keeled earless lizards, *Holbrookia propingua* (Sauria: Iguanidae). *Kyle W. Selcer* 9

Mayflies (Ephemeroptera) of the Concho River, Texas. *Brad C. Henry, Jr.* 15

Small mammal community structure in northeastern Nevada. *Michael J. O'Farrell* and *William A. Clark* 23

Feeding ecology of mourning doves (*Zenaida macroura*) in southeastern New Mexico. *Troy L. Best* and *Richard A. Smartt* 33

Primary production potential of blue-green algal mats on southern Texas tidal flats. *Warren Pulich, Jr.* and *Steven Rabalais* 39

A new species of harvestman from Arizona (Arachnida: Opiliones: Palpatores: *Dalquestia*). *James C. Cokendolpher* and *Scott A. Stockwell* 49

Aspects of the life history and ecology of the desert night snake, *Hypsiglena torquata deserticola*: Colubridae, in southwestern Idaho. *Lowell V. Diller* and *Richard L. Wallace.* 56

Electrophoretic and morphologic comparisons of *Sylvilagus floridanus* and *S. audubonii* in Texas. *Kim T. Scribner* and *Robert J. Warren* 65

Hardwood-redcedar clusters in the post oak savanna of Texas. *Edward J. Rykiel, Jr.* and *Terry L. Cook* 73

Comparative digestive efficiency and feed intake of the collared peccary. *Gary Carl* and *Robert D. Brown* 79

Supercooling studies on North American fire ants (Hymenoptera: Formicidae). *Oscar F. Francke, James C. Cokendolpher* and *Lindsey R. Potts* 87

Habitat, conservation status and zoogeography of the cyprinodont fish, *Cyprinodon variegatus hubbsi* (Carr). *Vincent Guillory* and *William E. Johnson* 95

Notes

Nutritive value of fruits or seeds of 14 shrub and herb species from south Texas. *James H. Everitt* 101

Red imported fire ant (*Solenopsis invicta*) predation on cliff swallow (*Hirundo pyrrhonota*) nestlings in east-central Texas. *Patricia J. Sikes* and *Keith A. Arnold* 105

The taxonomic and nomenclatorial status of *Mus ludovicianus* Custis, 1807. *J. Knox Jones, Jr., Dan L. Flores* and *Robert D. Owen* 106

Fall age ratios of the black-bellied whistling duck. *Marianna Heins-Loy* 107

Use of chemical ant repellents during small mammal trapping. *R. H. Chabreck, B. U. Constantin* and *R. B. Hamilton* 109

The discovery of *Aponomma elaphensis* larvae (Acarina: Ixodidae) on *Elaphe subocularis* (Reptilia: Colubridae). *William G. Degenhardt* 111

Trunk *vs.* ground feeding in cactus wrens (*Campylorhynchus brunneicapillus*, Troglodytidae). *Kathleen C. Parker* 111

Microarthropods and nematodes in kangaroo rat burrows. *T. R. Seastedt, O. J. Reichman* and *T. C. Todd* 114

The influence of burning on tillering and aboveground biomass partitioning in little bluestem (*Schizachyrium scoparium*). *Tony Svejcar* and *Scott Christiansen* 116

Morphological variation in the Trans-Pecos rat snake (*Elaphe subocularis*). *Robert G. Webb* and *George M. Ferguson* 118

An enigmatic population of *Gambusia gaigei*. *Clark Hubbs, Gerard Hoddenbach* and *C. Mike Fleming* 121

Two noteworthy records of Oklahoma mammals. *Frederick B. Stangl, Jr.* and *Walter W. Dalquest* 123

Male pseudohermaphroditism in a population of kangaroo rats, *Dipodomys ordii*. *Gary S. Pfaffenberger, Floyd W. Weckerly* and *Troy L. Best* 124

Overwintering population dynamics of the bat fly, *Trichobius major* (Diptera: Streblidae). *William Caire* and *Lothar Hornuff* 126

Status of the introduced gekkonid lizard, *Cyrtodactylus scaber*, in Galveston, Texas. *Roy A. Bloom, Kyle W. Selcer* and *W. Ken King* 129

Carapace regeneration in *Terrepene* (Chelonia: Testudinae). *Francis L. Rose* 131

Downy woodpecker feeding on mud-dauber wasp nests. *Kimberly G. Smith* 134

The occurrence of plague (*Yersinia pestis*) in a bobcat from the Trans-Pecos area of Texas. *Stephen P. Tabor* and *Rex E. Thomas* 135

The black-eared rice rat, *Oryzomys melanotis*, in Nicaragua. *J. Knox Jones, Jr.* and *Mark D. Engstrom* 137

Cover

Cover drawing of tiger salamander, *Ambystoma tigrinum* by J. L. Wilson

Number 2

Articles

Morphologic variation in the coyote, *Canis latrans*, in the southern United States. *Michael L. Kennedy, Paul L. Leberg* and *George D. Baumgardner*..... 139

The distribution and status of warmwater fishes in the Platte River drainage, Colorado. *David L. Propst* and *Clarence A. Carlson*..... 149

New and reconsidered Mexican Acanthaceae. II. *Thomas F. Daniel*..... 169

Postfire recovery of chaparral along an elevational gradient in southern California. *Jon E. Keeley* and *Tomas J. Soderstrom*..... 177

Reproductive traits of the blacktail shiner, *Notropis venustus* (Girard), in southeastern Mississippi. *David C. Heins* and *Debora R. Dorsett*..... 185

Habitat selection by the northern cardinal in three eastern Texas forest stands. *Richard L. Ehrhart* and *Richard N. Conner*..... 191

Effect of within-leaf density and leaf size on pupal weight of a leaf-miner, *Cameraria* (Lepidoptera: Gracillariidae). *Thomas L. Bultman* and *Stanley H. Faeth*..... 201

Population structure, growth and reproduction of the Arkansas darter, *Etheostoma cragini* (Percidae). *Charles A. Taber, Barbara A. Taber* and *Milton S. Topping*..... 207

A history of predator control and deer productivity in northern Arizona. *Clay Y. McCulloch* . 215

Biochemical genetic studies of native Arizona and New Mexico trout. *Eric J. Loudenslager, John N. Rinne, G. A. E. Gall* and *Robert E. David*..... 221

Production, density and height of flower stalks of three grasses in annually burned and unburned eastern Kansas tallgrass prairie: A four year record. *Alan K. Knapp* and *Lloyd C. Hulbert*..... 235

Notes

The status of the name *Homalocranium breve* Günther, 1895 (Colubridae). *Larry David Wilson*..... 243

Lipid content and delayed emergence of hatchling yellow mud turtles. *David R. Long*..... 244

Feeding behavior of an arboreal, insectivorous snake (*Opheodrys aestivus*) (Colubridae). *Steven K. Goldsmith*..... 246

Two additions to the herpetofauna of Honduras: *Smilisca sordida* and *Drymobius melanotropis*. *Larry David Wilson* and *Gustavo A. Cruz Diaz*..... 249

Feeding of rainbow trout (*Salmo gairdneri*) and arroyo chubs (*Gila orcutti*) in a California mountain stream. *Carl Richards* and *David L. Soltz*..... 250

A record of brown-headed cowbird (*Molothrus ater*) nest parasitism of rufus-crowned sparrows (*Aimophila ruficeps*). *Donald B. Miles*..... 253

Surface sculpturing of the integument in Isopoda (Crustacea). *Kamel T. Khalaf*..... 254

Use of *Neotoma* nest for breeding by Gambel's quail. *Glenn E. Walsberg* and *Eileen Zerba*.... 256

The taxonomy of *Neivamyrmex graciellae* (Mann) (Hymenoptera: Formicidae: Ecitoninae) including an original description of the queen and field observations. *Julian F. Watkins II* and *Christopher J. Coody*..... 256

Esenbeckia berlandieri (Rutaceae) rediscovered in extreme southern Texas. *Michael R. Heep* and *Robert I. Lonard*..... 259

Predation on lark sparrow eggs by a massasauga rattlesnake. *Samuel W. Brush* and *Gary W. Ferguson*..... 260

Agonistic interactions between *Gopherus agassizii* (Testudinidae) and *Heloderma suspectum* (Helodermatidae). *Sheryl L. Barrett* and *Jeffrey A. Humphrey*..... 261

Distributions and habitats of voles in southeastern Colorado and northeastern New Mexico. *Robert B. Finley, Jr., Jerry R. Choate* and *Donald F. Hoffmeister*..... 263

Tooth failure is not an important mortality factor in a white-tailed deer herd in Texas. *John G. Kie* and *Marshall White*..... 266

Cellular slime molds (Dictyosteliales) of selected plant communities of southern Oklahoma and northern Texas. *John C. Landolt*..... 267

Fungus infection of two species of grasshoppers in western South Dakota. *Burruss McDaniel*..... 269

A comparison of MacArthur foliage density estimate with actual leaf surface area and biomass. *Richard N. Conner* and *Kathleen A. O'Halloran*..... 270

Soil movement by desert ants. *Walter G. Whitford, Douglas Schaefer* and *Wendy Wisdom*..... 273

A bilateral gynandromorph of the western harvester ant, *Pogonomyrmex occidentalis* (Hymenoptera: Formicidae). *Stephen W. Taber* and *Oscar F. Francke*..... 274

Cover

Cover drawing of tiger salamander, *Ambystoma tigrinum* by J. L. Wilson

Number 3

Articles

A late pleistocene-holocene fauna from Chihuahua, Mexico. *Henry J. Messing* 277

Antler characteristics as related to social status of male southern mule deer. *R. Terry Bowyer* . 289

The annual testicular cycle of *Pseudemys scripta elegans* (Emydidae) in the Texas Panhandle. *Ken Brewer* and *F. C. Killebrew* 299

Status of the southern populations of the night snake (*Hypsiglena*: Colubridae) exclusive of California and Baja California. *James R. Dixon* and *Robert H. Dean* 307

Ecogenetic patterns of four shrub species in semi-arid communities of northwest Colorado. *William L. Slauson* and *Richard T. Ward* 319

Patron reproductivo de *Sturnira lilium parvidens* (Chiroptera: Phyllostomidae) en la costa central del Pacifico de Mexico. *Cornelio Sánchez Hernández, Ma. Teresa Castrejón Osorio* y *Catalina B. Chávez Tapia* 331

Hydroporus williami, a new dytiscid of the *vilis* group from the western United States (Coleoptera: Dytiscidae). *Richard A. Rochette* 341

Riparian plant communities of the Fort Bayard watershed in southwestern New Mexico. *Alvin L. Medina* 345

Body weight and aspects of pairing chronology of green-winged teal and northern pintails wintering on the southern high plains of Texas. *Guy A. Baldassarre* and *Eric G. Bolen* 361

Establishment of *Helianthus maximiliani* (Asteraceae) in abandoned cropland in the post oak savannah of Texas. *C. A. Call* and *D. W. Owens* 367

Longitudinal patterns in the fish assemblages of an ozark stream. *David L. McNeely* 375

Genetic variability in a population of *Paraponera clavata* (Hymenoptera: Formicidae). *Calvin A. Porter, Pamela Thompson, Hal L. Black* and *Clive D. Jorgensen* 381

Aspects of the ecology and management of the tortoise *Gopherus berlandieri* at Laguna Atascosa, Texas. *R. Bruce Bury* and *Elizabeth L. Smith* 387

Notes

Pogonomyrmex occidentalis, an addition to the ant fauna of Mexico, with notes on other species of harvester ants from Mexico (Hymenoptera: Formicidae). *Justin O. Schmidt, Patricia J. Schmidt* and *Roy R. Snelling* 395

Records of *Baetisca obesa* (Say) (Emphemeroptera: Baetiscidae) in southeast Texas and southwest Louisiana. *Steven P. Lewis* 396

Additions to the bryoflora of southern New Mexico. *Lloyd R. Stark* and *Richard C. Castetter* 398

Spawning behavior of the gray redhorse, *Moxostoma congestum* (Pisces: Catostomidae) in central Texas. *Robert F. Martin* 399

Barn owl prey selection: 1938 and 1984. *Rollin H. Baker* 401

Geographic variation in white facial markings of juvenile cave swallows. *Robert F. Martin, Mark W. Martin* and *Nancy G. Lanier-Martin* 402

Second record of *Cryptotis parva* (Soricidae: Insectivora) in New Mexico, with review of its status on the Llano Estacado. *Robert D. Owen* and *Meredith J. Hamilton* 403

Habitat diversity in the whiptail lizard *Cnemidophorus gularis gularis* (Teiidae) in southern Oklahoma. *J. Martin Walker, Mark A. Paulissen* and *James M. Britton* 405

Burrows of the parthenogenetic whiptail lizard *Cnemidophorus laredoensis* (Teiidae) in Webb Co., Texas. *J. Martin Walker, Stanley E. Trauth, James M. Britton* and *James E. Cordes* 408

Endohelminths of three species of *Oryzomys* (Rodentia: Cricetidae) from San Luis Potosi, Mexico. *Harold T. Underwood, James G. Owen* and *Mark D. Engstrom* 410

Immobilization of desert mule deer with etorphine plus azaperone. *Paul R. Krausman, Kurt R. Rautenstrauch, John J. Hervert, Richard Remington* and *Leonard L. Ordway* 411

Bone-chewing by desert bighorn sheep. *Greg Warrick* and *Paul R. Krausman* 414

Sorex merriami (Insectivora: Soricidae) in eastern Nevada. *Mark A. Ports* and *J. Kent McAdoo* 415

Long-eared owl diet in northwestern New Mexico. *Carl D. Marti, Jeffrey S. Marks, Timothy H. Craig* and *Erica H. Craig* 416

Pinna tissue, a source of allozymic information. *Jean Dubach* 419

Number 4

Articles

Distribution and records of Colorado Tricoptera. *Scott J. Herrmann, David E. Ruiter* and *John D. Unzicker* 421

Geographic variation in morphology of a spring-dwelling, desert fish, *Gambusia nobilis* (Poeciliidae). *Alice F. Echelle* and *Anthony A. Echelle* 459

Distributional associates of the saguaro *(Carnegiea gigantea). Richard L. Hutto, Joseph R. McAuliffe* and *Lynee Hogan* 469

Geology and vertebrate paleontology of a Lower Permian delta margin in Baylor County, Texas. *Walter W. Dalquest* and *M. John Kocurko* 477

The relationship of plant species heterogeneity to soil variation in buffalo wallows. *H. Wayne Polley* and *Linda L. Wallace* 493

New records of winter stoneflies (Plecoptera) from southwestern New Mexico, with notes on habitat preferences and zoogeographical origins. *Gerald Z. Jacobi* and *Steven J. Cary* ... 503

Comparison of mass loss, nutrients, and invertebrates associated with elm leaf litter decomposition in perennial and intermittent reaches of tallgrass prairie streams. *Cathy M. Tate* and *Martin E. Gurtz* 511

Aquatic coleoptera associated with Arkansas rice, with observations on the effects of carbofuran, molinate, predatory fish and late-planting. *J. S. Heiss, G. L. Harp* and *M. V. Meisch* 521

Notes

Spontaneous triploidy in a natural population of the fathead minnow, *Pimephales promelas* (Pisces: Cyprinidae). *J. R. Gold* 527

Records of the desert shrews (*Notiosorex crawfordii*) from Baja California, Mexico. *Eric Yensen* and *William H. Clark* 529

Early breeding in free-ranging mountain sheep. *Vernon C. Bleich* 530

Notas sobre murcielagos del este de Chiapas. *Rodrigo A. Medellin, Guillermina Urbano-Vidales, Oscar Sànchez-Herrera, Guadalupe Téllez-Girón S.* y *Héctor Arita W.* 532

New distributional records of Naucoridae (Hemiptera) from the United States and Mexico, with morphological and taxonomic notes. *Jack R. Davis* 535

Fire ant-induced trap mortality of small mammals in east-central Texas. *M. P. Masser* and *W. E. Grant* 540

Chaetogaster limnaei (Oligochaeta: Naididae) in Oklahoma. *Jan Jeffrey Hoover* and *Michael J. Lodes* 542

First record of the blackburnian warbler, *Dendroica fusca*, from the Central Desert in Baja California, Mexico. *William H. Clark* and *Shirley S. Kendall* 544

New distributional records for *Cyprinodon nevadensis mionectes*, an endangered pupfish from Ash Meadows, Nevada. *Thomas Baugh, Jack E. Williams, David A. Buck* and *James E. Deacon* 544

First record of *Baiomys taylori* north of the Red River. *Arthur G. Cleveland* 547

Expansion of *Baiomys taylori* into Hardeman County, Texas. *Terry A. Austin* and *Julie A. Kitchens* 547

Utilization of seed dispersions by two sympatric kangaroo rat species. *Philip Behrends* 548

An observation on the social interaction of Texas horned lizards *(Phrynosoma cornutum). John Peslak, Jr.* 552

Palm burning and increased spadix production. *James W. Cornett* and *Jon M. Stewart* 552

First verified record of the stonecat, *Noturus flavus* (Ictaluridae), in the South Platt River system, Colorado, with notes on an albinistic specimen. *Steven P. Platania, Timothy R. Cummings* and *Kenneth J. Kehmeier* 553

Temporal foraging activities of *Solenopsis invicta* (Hymenoptera: Formicidae) and other predominant ants of central Texas. *David M. Claborn* and *Sherman A. Phillips, Jr.* 555

A bryozoan from an unexplored cave at Montezuma Well, Arizona. *Behrooz Dehdashti* and *Dean W. Blinn* 557